Simulations of chirped pulse generated wakefield instabilities with VORPAL

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VORPAL, a dimension free, parallel, plasma simulation code, has been used to calculate the growth rates for the modulational instability of chirped pulses in three dimensions. The pulses are (give characteristics - length, width, energy, chirp, etc.). For 3% chirp, both signs of chirp are unstable, with the positively chirped pulses having slightly faster growth rates. Quantitative results and results for larger values of chirp will be presented.

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Ms. A'Hearn,
I am submitting an abstract for consideration for the workshop on High Performance Computing in Particle Accelerator Science and Technology of the ICCS. Below is the title, abstract and author information.